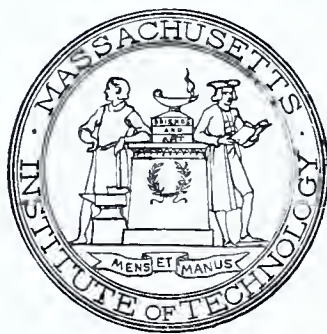


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MASSACHUSETTS  
INSTITUTE OF TECHNOLOGY

BOSTON.



A GUIDE TO THE EXHIBIT

AT

THE WORLD'S COLUMBIAN EXPOSITION,

1893.

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Visitors are respectfully invited to observe  
that the exhibit of the Massachusetts  
Institute of Technology occupies two  
Courts one on either side of the main aisle

THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, opened in 1865, is mainly a school of pure and applied science, and is the college of mechanic arts for Massachusetts under the United States grants of 1862 and 1890.

Its curriculum includes the sciences and their technical applications through a very wide range, represented by the following courses, each arranged to be taken in four years, or, if preferred, in five : —

- I. CIVIL ENGINEERING (including options in Railroad and Highway Engineering and in Geodesy).
- II. MECHANICAL ENGINEERING (including options in Locomotive, Mill, and Marine Engineering).
- III. MINING ENGINEERING AND METALLURGY.
- IV. ARCHITECTURE.
- V. CHEMISTRY.
- VI. ELECTRICAL ENGINEERING.
- VII. BIOLOGY.
- VIII. PHYSICS.
- IX. GENERAL STUDIES.
- X. CHEMICAL ENGINEERING.
- XI. SANITARY ENGINEERING.
- XII. GEOLOGY.
- XIII. NAVAL ARCHITECTURE.

The requirements for admission are represented by entrance examinations in Arithmetic and Metric System, Algebra, Plane Geometry, English, History, and French or German, and are substantially the same with the requirements for graduation from a good high school or from the English or scientific department of such an endowed academy as those at Exeter, Andover, or Easthampton.

Teachers and college graduates are excused from entrance examinations. The latter coming to the Institute for their professional training may, as a rule, complete any of its courses in two to three years.

The age required of students upon entrance is seventeen years; their average age is eighteen and a half.

The degree of Bachelor of Science is given on the successful completion of any of the above courses. The degrees of Master of Science, Doctor of Science, and Doctor of Philosophy are given for graduate courses. No honorary degrees are given.

The catalogue for 1892-93 shows an attendance of 1,060 students and a staff of 125 professors and instructors. These students come from 39 States and many foreign countries. The size of the graduating classes has increased very rapidly in recent years, the present number being about 130.

The graduates of the Institute, as a rule, readily find professional positions, and, as a rule, also, their further progress is abundantly satisfactory. The positions held by them are indicated in the published list in the annual catalogue. A special portfolio has been prepared showing the successive positions held by graduates of the Institute, and by a large proportion of other former students, who have received and applied more or less of its professional training.

## THE EXHIBIT.

The principal elements of the exhibit of the Institute are as follows :—

**1. Photographs.** Of these there are nearly three hundred, comprising both exterior and interior views of buildings, vistas of drawing rooms and laboratories, views of groups of apparatus, and of single important pieces of apparatus, and views of students at work.

These photographs will be found partly in Wing Frames and partly in Portfolios, to be spoken of below. A considerable number have been selected for enlargement, and will be found upon the walls.

### **2. Examples of Students' Work :—**

(a) **DRAWINGS** from the regular class-room work in the several courses of study. These will be found, in part, framed upon the walls, and in part in the Wing Frames. Also drawings accompanying the theses submitted by students at the end of their several courses, in proof of their competency to make original designs or investigations of professional merit. There are also bound volumes of engineering drawings.

(b) **SHOPWORK.** A full set of pieces in carpentry, forging, pattern making, etc., made by students of Mechanical Engineering as a part of their regular course. A separate four-page circular, to be had from the custodian, gives an account of the methods of instruction in the mechanic arts.

(c) **CHEMICAL PRODUCTS**, prepared by the students in the Laboratory of Industrial Chemistry, also a collection of yarns dyed in different colors or shades by the students in Industrial Chemistry.

**3. Portfolios** containing a detailed and fully illustrated description of the methods of instruction and of the equipment of each of the departments of the Institute, representing also the administrative methods of the School, the organization of its libraries, the arrangement of rooms in the various buildings, the apparatus employed for heating and ventilating, and student life at the Institute. It is by

careful examination of these, and the theses referred to below, that the nature of the work done at the Institute may be best appreciated.

4. **Theses** of the one hundred and thirty-two members of the graduating class of 1892. These appear as originally presented by their authors without revision, and may be examined on application to the custodian.

5. **Text Books and Notes.** A collection of those books and pamphlets used in instruction which have been prepared with direct reference to the work of the Institute by its own teachers, and the larger part of which have been printed for the use of its students without formal publication.

Among interesting secondary features may be especially mentioned:—

1. **THE LOWELL SCHOOL OF DESIGN EXHIBIT** of patterns for wall-papers, carpets, etc. This is an independent school maintained by the Lowell Institute, under the direction of the Corporation of the Institute of Technology.

2. **COURSE CHARTS.** Showing the arrangement of studies in several of the thirteen courses of the Institute. The size and color of the titles distinguish the directly professional studies from those which, though fundamental, are less technical in character, and both of these from those which are designed to impart general culture or information, as the modern languages, literature, political science, etc.

3. **STATISTICAL CHARTS.** These show the States and countries from which the one thousand and sixty students of the present year have come to the Institute, the total number of students by years since 1865, the space occupied by the several departments, the number of graduates by courses, etc., etc.

4. **APPARATUS.** Typical pieces are shown in civil and mining engineering and biology. A three-phase motor constructed by students in electrical engineering in 1892 may be specially mentioned.

The Institute has also a special exhibit in connection with that of the other Land Grant Colleges, in the Agricultural Building.

The custodian will furnish on application an illustrated pamphlet giving a detailed account of the organization and conduct of the various departments of the Institute. Copies of the Annual Catalogue and President's Reports for the present year, as well as of other Institute publications, may be consulted, and duplicates will be mailed to any address on application. Persons desiring additional information in regard to any features of the Institute and its work are invited to address the Secretary, DR. H. W. TYLER, *Institute of Technology, Boston, Mass.*